

FOOTWAY

Surface Course

20mm of 6mm close graded surface course, 100/150 pen bitumen (AC 6 close surf 100/150) to PD6691 Annex B - BSI Standard Publication

Binder Course 50mm of 20mm heavy duty binder course, 40/60 pen bitumen, designed mix. (AC 20 HDM bin 40/60 des)

to PD6691 Annex B - BSI Standard Publication

100mm compacted thickness of Type 1 (well graded crushed rock, or other approved material complying with Clause 803 of SHW (specification of highway works).

Sub-base

TACTILE PAVING (WHERE

USED). SEE NOTE 3

FOR COLOUR USAGE

0 0 0 0 0 0 0

0 0 0 0 0 0

0 0 0 0 0 0

0 0 0 0 0 0

0 0 0 0 0 0

0 0 0 0 0 0 0

400/450

TACTILE SLAB PLAN

400/450

TACTILE SLAB ELEVATION

16 RAD.

TACTILE SLAB SECTION

5 +/-0.5

SEE

NOTE 4

Thickness increased to 150mm at vehicle cross-overs

65mm of 20mm dense binder course, 40/60 pen bitumen, designed mix. (AC 20 dense bin 40/60 des) to BS EN 13108 bituminous mixtures material specifications.PD6691 Annex B - BSI Standard Publication

Base Course 100mm of 32mm dense base, 40/60 pen bitumen, designed mix. (AC 32 dense base 40/60 des) to BS EN 13108 bituminous mixtures -

material specifications.PD6691 Annex B - BSI Standard Publication Sub-base

Surface Course

Binder Course

200mm compacted thickness of Type 1 (well graded crushed rock, or other approved material complying with Clause 803 of SHW (specification of highway works).

CARRIAGEWAY

BS EN 13108 bituminous mixtures - material specifications.

PD6691 Annex C - BSI Standard Publication

35mm of 10mm Stone Mastic Asphalt Surface course with 40/60 pen

bitumen ans 55psv course aggregate (SMA 10 surf 40/60 psv55) to

A capping layer of type 1 material to clause 803 SHW will be required. Overall a 450mm minimum construction thickness is required if no capping layer sub base thickness of Type 1 to be increased to 260mm

A capping layer will be required due to ground CBR 0.8%. Total combined thickness of 300mm. First part 300mm thickness to be laid on a layer of Geotextile Ekotex Type B TR-19-2979 V1 and a Geogrid Tenax Type A TR-19-2979 V1. Granular fill material for both parts to be well compacted type 1 to clause 803 SHW. **Bond Coat**

Bond coat complying with BS 594987 shall be applied to all bound sub strates.

TYPE 4 (DROPPED KERB) 125x150

LAID WITH SQUARE EDGES

KERB TYPE K4A

NOTES:

DOCUMENT:

UPPERMOST

MAX. GRADE OF 8% (APPROX. 1 IN 12)

400/450

DOMES ARE SPHERICAL

WITH FLATTENED TOP

CONCRETE

SEE SECTION BELOW

MIX ST2

FIG.1 TYPE BN KERB B.S.7263 PART 3

TACTILE PAVING DETAILS

Sub-grade Soft spots to be removed and suitable material rolled in, in 150mm thick layers. Sub-grade to be compacted with a roller of approved type

SURFACE AND

BINDER COURSE

SUB-BASE

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

2. TACTILE SLABS TO BE LAID PARALLEL TO THE CROSSING.

VARIES BUT 100

The sub-base thickness shown may be amended at the discretion of the County Surveyor

Gully Pots to be salt glazed stoneware to BS539 or PCC to BS 556 min. 900 deep x 450 int Dia with 150 Dia trapped outlet with stoppered rodding eye all bedded and surrounded in 150mm of ST4 concrete. Gully Gratings and Frames to be to EN124, Group 4 (class D400) gully covers shall be hinged in the direction of traffic but not removable and shall have a nominal width of 450mm with minimum area of waterway of 900 square cm 150mm Dia connecting pipe to sewer to be surrounded by 150mm of ST2 concrete if within 1.2m of Road Surface. Invert of discharge pipe to be at least 200mm below formation level.

250 x 125 PC kerbs showing 100mm face bedded on mortar within 50mm of the beam face and backed with 150mm of concrete to within 50mm of the top of kerb. Kerb beam to be 430 x 150mm min. thickness of ST2 Concrete 150 x 125 PC kerbs to be used on garage accesses showing 25mm face all bedded and backed as above. KERB FACE ON BUS ROUTES TO BE 125mm

150 x 50 PC edgings bedded on 200 x 100 mm thick ST2 concrete and backed (both sides) with concrete to within 75mm of the top.

DoT Type 1:- Crushed Limestone is not permitted within 600mm of the finished surface

Type 1 and 2 roads are the same construction. See site drawing for road width information. Except that Type 1 roads have 150mm thick Road Base not 90mm

7) Backfilling of Trenches-

drainage.

EDGE OF EXISTING

CARRIAGEWAY

CONCRETE

DETAIL WHERE KERB IS AT EXISTING EDGE

MIX ST2

NOTES

After the pipeline has been inspected and tested the trench shall be backfilled with acceptable material Class 1 or 2. The material shall be compacted in layers not exceeding 225mm using power rammers, vibro-tampers, vibrating plate compactors or any other agreed compaction plate, suitable material shall not contain any sharp stones, stones greater than 25mm diameter or clay lumps over 75mm. 8) Geogrid Tenax LBO Type A TR-16-1685V1-

To EN ISO 10319 with minimum tensile strength of 6kN/m. Non-woven geotextile used for reinforcement, stabilisation, separation, filtration & drainage. Formed of Rectangular apertures with 2.0% carbon black content.

9) Geotextile Ekotex LBO Type B TR-16-1685V1-To EN ISO 10319 with minimum tensile strength of 6kN/m. Non-woven geotextile used for reinforcement, stabilisation, separation, filtration &

40 THICK SURFACE COURSE ADJACENT TO

MEASURED AS ITEM (cc) OF THE KERBING

VARIES BUT

100mm MIN.

JOINT TO BE SAWN

CUT AND SEALED

KERBLINE TO MATCH EXISTING (TO BE

ITEM COVERAGE)

TYPE 4 KERB LAID WITH

SQUARE EDGES UPERMOST

<u>Kerb Notes</u>

1. These details are for kerbing laid in conjunction with new carriageway

construction including haunching.

2. Concrete bed to be mechanically vibrated and the surface roughened

to provide a key for backing.

- 3. The mortar bed may be omitted if method of laying kerbs direct onto wet concrete is approved by the Overseeing Organisation. The backing concrete must be placed within one hour of laying the concrete bed. All
- 4. Kerb face to be 125mm unless otherwise stated in Appendix 11/1.

concrete to be Mix ST2.

5. Kerbs laid to smooth horizontal and

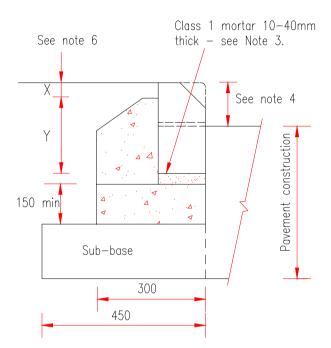
vertical alignment.

- 6. X dependant upon treatment behind kerb. For verge 40mm min. For footway/access = depth of surfacing. Y to be $\frac{2}{3}$ rds kerb depth minimum
- unless otherwise specified. 7. 0-6mm upstand for pedestrian crossings and 25mm upstand for
- 8. All dimensons in millimetres.

vehicular access.

9. To be read in conjunction with NCD1100-1.

KERB DETAILS



Kerb Types HB, SP & BN

vibrated. Step irons to EN 13101, Clause 507.6. Top iron concrete base. Ladder to be used if depth to invert exceeds 3m, in accordance with HCD F10.

<u>PLAN ON B-B</u>

CHAMBER RING DIAMETER	MAX. PIPE DIAMETER
900	225
1050	375
1200	450
1500	700
1800	900

500 max from cover level, bottom iron 300 above

CHAMBER RING DIAMETER	MAX. PIPE DIAMETER
900	225
1050	375
1200	450
1500	700
1800	900

bottom of taper is a minimum of 1.8m above concrete base. 8. Number of pipe openings to be as detailed

interlocking brick system.

carriageway.

. All dimensions in millimetres.

only shall be B125.

2. Catchpit to be constructed in precast

3. Manhole cover or grating as specified in

Appendix 5/1. D400 double triangular

non-rock in carriageway. Covers and

carriageway, they shall be laid on a

frames in areas accessible to pedestrians

proprietary recycled plastic interlocking brick

system. Where covers are used in verges

and footway Class B engineering bricks may

Heavy duty precast cover slab placed with

in verge and nearest to channel in

Where catchpits are constructed in the

opening away from traffic wherever possible

carriageway the top of the slab will be at

formation level and the depth between the

slab and frame will be constructed in plastic

Taper and shaft rings may be used provided

concrete to BS 5911:Part 200.

4. Where covers are used within the

be used as an alternative.

in Appendix 5/1 and/or as shown on construction drawing. 9. All carrier pipes shall have the same soffit

level unless detailed otherwise in Appendix

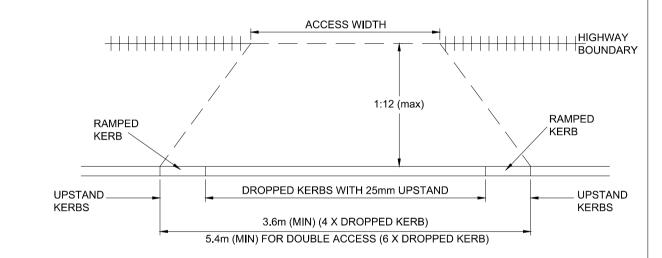
10. Access opening to chambers as NCD 500-09.

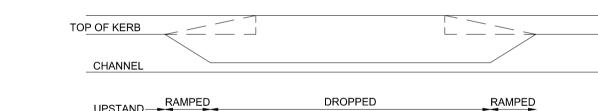
11. Pipes to have flexible joints (F.J.) not

greater than 600mm from chamber wall. 12. Where covers are being reset due to failure, plastic interlocking bricks are to be used. Reinstatement to be proprietary mastic

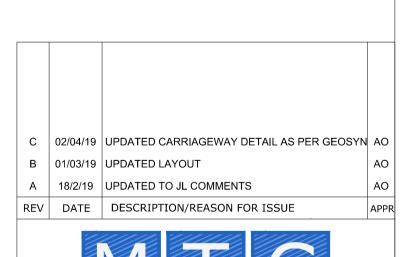
asphalt where appropriate, if not HRA.

VEHICULAR CROSSING





LONGITUDINAL SECTION



MTC Engineering (Cambridge) Ltd. Ground Floor, 24 High Street

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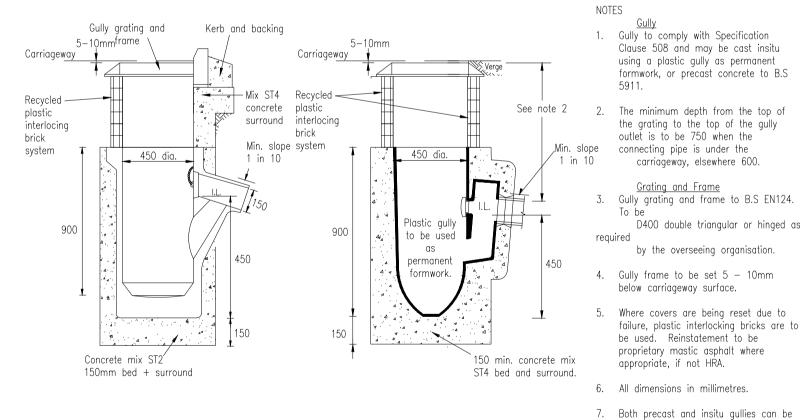
Whittlesford, Cambridgeshire, CB22 4LT

The Winch, 70 Main Road West Winch, Norfolk Norfolk County Council Construction Specification

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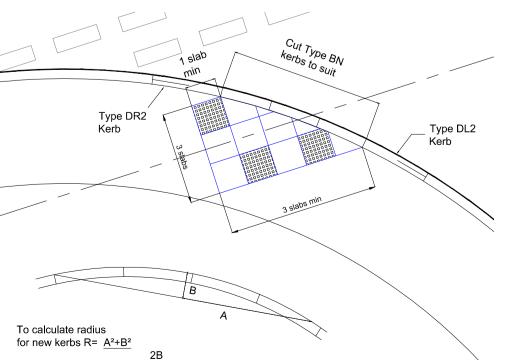
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GULLY DETAILS



PRECAST UNIT SHOWN WITH KERB

INSITU GULLY SHOWN WITH VERGE



PIPE BEDDING DETAILS (TYPE S)

1/6Bc or 100mm min. for a 675mm diameter and above, whichever is the greater but not less than 50mm 1/4Bc or 150mm min. up to a 600mm diameter, whichever is the greater but not less than 200mm under the sockets in rock or mixed soils TYPE 'S' FILL & SURROUND (graded 20mm for pipes up to & including 300mm dia, 20-5mm for pipes over 300mm dia, and 40-25mm for 750mm dia pipes and PIPE SPECIFICATION AS SHOWN IN "SEWERS FOR

5. INSPECTION CHAMBER AND MANHOLE COVERS WITHIN AREA OF TACTILE PAVING TO BE FITTED WITH RECESSED COVERS INLAID WITH TACTILE PAVING. 6. PRE-CAST UNITS WEIGHING IN EXCESS OF 20kgs ARE TO BE PLACED BY MECHANICAL MEANS. 7. ALL SAFETY MEASURES ARE TO BE TAKEN WITH REGARD TO BREAKING OUT AND MECHANICAL MEANS ARE TO BE USED WHERE POSSIBLE. IF BREAKING-OUT GUNS ARE USED, THE USE OF ANTI-VIBRATION GLOVES AND ROTATION OF LABOUR IS RECOMMENDED. **DESIGN NOTES:**

3. TACTILE SLABS TO BE COLOURED RED AT SIGNAL CONTROLLED CROSSINGS AND BUFF AT OTHER CROSSINGS.

FOR GENERAL DETAILS OF TACTILE SLAB LAYOUT, REFER TO DRAWING No. NCD 1100-22 AND DEPARTMENT FOR TRANSPORT

'GUIDANCE ON THE USE OF TACTILE PAVING SURFACES'

4. TACTILE SLABS TO BE BEDDED ON 25mm THICK 3:1 CEMENT MORTAR ON 150mm THICK TYPE 1 SUB-BASE.

Outside diameter of pipes

installed adjacent to kerb or verge.

CATCHPIT DETAILS

See Note 5 +

-Depth of

Catchpit

SECTION A-A

DIM. X VARIES TO 900*, 1050*, 1200, 1500

or 1800 as specified in Appendix 5/1.

*Note 900 and 1050 not recommended, only to be

where restriction of space prevents use of larger

size chambers.

If 900¢ chamber is specified maximum pipe dia. is

225mm

200

<u>Flat Top Edging Type EF</u>

Manhole cover or

grating — refer to

Precast

concrete

mix ST1

concrete

surround

ring with

Concrete mix

Invert

-Recycled plastic interlocing

Clause 2404.

concrete

chamber rings Joint

300 below lowest max

pipe invert

Insitu Concrete mix

ST4 mechanically

brick system refer to Note 4.

Heavy duty precast slab bedded on

10mm min. Class (i) mortar to

75mm perforated land drain in used as a culvert